

NO. 10.

WISCONSIN GEOLOGICAL AND
NATURAL HISTORY SURVEY

E. A. BIRGE, Director.

HYDROGRAPHIC MAP

OF

LAKE MONONA,

DANE COUNTY, WIS.

Showing also the Adjacent Topography.

Survey in Charge of L. S. Smith.

MADISON, WIS.

1901.

Explanation of Map.

THIS MAP shows by means of contour lines and by tinting, the depth of the water in Lake Monona and the shape of its bottom, and also by means of contour lines printed in brown, the topography of the shore of the lake. The topography and the hydrography adjacent to the shore are mainly the work of students in the Civil Engineering course of the University of Wisconsin, and were made by the class of 1901. The hydrography of the open water of the lake was prepared from surveys made by the Geological and Natural History Survey. The observations for the shore hydrography were made by means of lines of soundings run normal to the shore at close intervals, extending as far out as stadia rod could be easily read perhaps one-third of a mile. The soundings for the hydrography for the deeper part of the lake were made through the ice; the position of each sounding being determined by exact measurements.

The contour lines on the lake show intervals of five feet in depth. The line marked "5" is drawn through the points where the water is five feet deep, and indicates what the outline of the lake would be if the surface were lowered five feet. The next line to this marks the depth of ten feet, and so on of the succeeding lines. The space between any line and that next inside of it indicates the distance required for the depth of water to increase five feet. The lines serve, therefore, to indicate the slope of the bottom, as well as the depth of the water. Where the lines are close together, as off the city, the slope of the bottom is steep. Where they are far apart, as in the central part of the lake, the slope of the bottom is correspondingly gradual.

The topography of the shore of the lake is indicated by means of contour lines placed at intervals of 10 feet. These lines indicate the height of the land in the same way that the contour lines in the lake indicate the depth of the water. The line marked "10" shows substantially what the outline of the land would be if it were flooded to a depth of 10 feet, and similarly the lines marked "20," "30," etc., show those parts of the hills which would remain above water if the level were raised to corresponding heights. It will be seen that the highest hills in the immediate neighborhood of the lake are slightly more than 100 feet in height. The hill in the extreme southern part of the map is 104 feet in height.

Lake Monona is about 5 feet below Lake Mendota and about 4 feet of this difference is due to the dam at the outlet of Lake Mendota. The elevations of the land on this map are referred to the level of Lake Monona, so that the heights appear about 5 feet greater than on the map of Lake Mendota, which was issued in 1900, in which the level of Lake Mendota was taken as the datum plane for the land contours.

HYDROGRAPHIC MAP
OF
LAKE MONONA, DANE CO., WISCONSIN

AND OF THE
ADJACENT TOPOGRAPHY

PREPARED FROM SURVEYS MADE BY
CIVIL ENGINEERING STUDENTS, UNIVERSITY OF WISCONSIN

CLASS OF 1901.

AND BY THE

WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY

E. A. BIRGE, PH. D., DIRECTOR.

Hydrography and Cartography in charge of L. S. Smith,

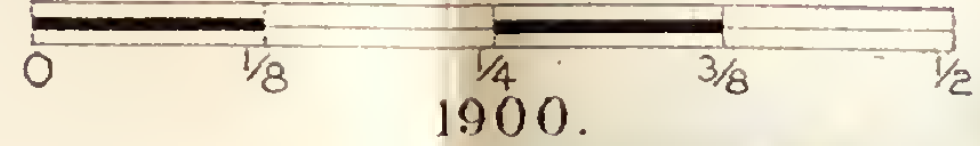
Contour Interval of the Hydrography = 5 Ft.

Contour Interval of the Topography = 10 Ft.

Datum Plane is Lake Level.

20 FT.
40 FT.
60 FT.

Scale in Miles.



Area of Lake is 3.9 sq. miles.
Circumference is 13.2 miles.
Elevation above the Sea 841 ft.
Greatest depth 74 ft.

